

Docket No. 304-817

Appl. No. 10/712,183

Amendment

Reply to Office Action dated September 22, 2004

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A tool for machine working of workpieces (40), comprising:
a tool holder (12) having a fixing element (19) with a shank section (22) and a gripping head (24) thicker than the shank section, and
a cutting insert (13) to be fixed to the tool holder, ~~which~~ the cutting insert having at least one blade (39),
an opening (30) for the fixing element (19), and
at least one gripping surface (33) cooperating with the gripping head (24),
wherein the tool holder (12) ~~having~~ has tensioning means for the fixing element (19),
wherein the cutting insert ~~having~~ has a slot (36) connecting the opening (39) to an outer edge (35) of the cutting insert (19), and
wherein the slot ~~having~~ has a width not smaller than the thickness of the shank section (22).
2. (Currently amended) Tool according to claim 1, wherein the fixing element (19) is placed in captive manner in the tool holder (12).
3. (Currently amended) Tool according to claim 1, wherein the fixing element (19) is operable for clamping and unclamping purposes from the back (48) of the tool holder (12) opposite to the cutting insert (13).
4. (Original) Tool according to claim 2, wherein the fixing element is operable from both sides.
5. (Original) Tool according to claim 1, characterized in that the cutting insert is constructed as a reversible plate and with a gripping surface on both sides of the opening.

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6. (Currently amended) Tool according to claim 1, wherein the fixing element ~~(19)~~ being is a screw with internal key surfaces ~~(26, 44)~~ on both end faces and the tensioning means being is an internal thread in the tool holder.
7. (Currently amended) Tool according to claim 6, wherein the screw is engaged by a rotatable tightening key ~~(27)~~, having an engagement depth ~~(a)~~ for engaging in at least one of the key surfaces ~~(44)~~, the engagement depth being so limited with respect to the tool holder by a stop ~~(54)~~ that its rotation is interrupted before a thread ~~(20)~~ of the fixing element ~~(19)~~ and the tool holder are disengaged.
8. (Currently amended) Tool according to claim 1, wherein the gripping head ~~(24)~~ and associated gripping surface ~~(33)~~ are substantially conical.
9. (Currently amended) Tool according to claim 1, wherein between the gripping head ~~(24)~~ and the associated gripping surface ~~(33)~~ is provided a washer ~~(50)~~ adapted thereto.
10. (Currently amended) Tool according to claim 1, wherein the width of the slot ~~(36)~~ is smaller than the transverse dimensions of the gripping head ~~(24)~~.
11. (Currently amended) Tool according to claim 1, wherein the cutting insert ~~(13)~~ has at least one leg ~~(37)~~ bounding the slot ~~(36)~~.
12. (Currently amended) Tool according to claim 1, wherein the cutting insert ~~(13)~~ has at least one orienting face ~~(38)~~ and the tool holder ~~(12)~~ at least one stop face ~~(17)~~ cooperating with the orienting face ~~(38)~~.
13. (Currently amended) Tool according to claim 12, wherein on both sides of the slot ~~(36)~~ are provided orienting faces ~~(17)~~ on the outside of legs ~~(37)~~ bounding the opening ~~(30)~~.

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14. (Currently amended) Tool according to claim 12, wherein the gripping head (24) and gripping surface (33) are substantially conical ~~conically~~ and ~~having~~ have central axes (18, 31), the axes being so positioned with respect to the at least one orienting face (38) and stop face (17) that the spacing of the gripping head central axis (18) from the stop face (17) is somewhat smaller than the spacing of the central axis (31) of the gripping face (33) from the orienting face (38).

15. (Currently amended) Tool according to claim 1, wherein the tool holder (12) ~~have~~ has a shank (14) being provided with a hard metal core (15).

16. (Original) Tool according to claim 1, being a tool for universal machines by lathe working.

17. (Currently amended) A cutting insert for tools for machine working of workpieces (40), for fixing to a tool holder (12) with a fixing element (19) including a shank section (22) and a gripping head (24), the cutting insert (13) comprising:

at least one blade; (39);

an opening (30) for the fixing element; (19) and

a gripping surface (33) for the gripping head; (24);

wherein the cutting insert (13) ~~having~~ has a slot (36) connecting the opening (30) to an outer edge (35) of the cutting insert (13), the slot having a width ~~being that is~~ being not smaller than that of the shank section (22).

18. (Currently amended) Cutting insert according to claim 17, ~~characterized in that it~~ wherein the cutting insert is triangular with three corners, with a substantially central opening (30) and with a slot (36) provided in one corner and where blades (39) are provided at the two other corners.

19. (Currently amended) A method for fixing or removing a cutting insert (19) with having an opening (30) open to one side of the cutting insert to or from a tool holder (12), the method comprising the steps of:

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where providing a fixing element (13) inserted in the tool holder, the fixing element having with a shank section (22) and a gripping head (24) thicker with a diameter larger than the cutting insert opening and larger than the shank section;

moving the fixing element can be moved between a gripping position and a loosening position such that in the loosening position the shank section is proximate the cutting insert opening; and a gripping position;

wherein extracting the cutting insert, in the loosening position of the fixing element (19), by moving the cutting insert opening (13) can be moved over or removed from the shank section (22) of the fixing element (19) transversely to its the extension of the shank section.

20. (Currently Amended) Method according to claim 19, ~~characterized in that~~ wherein the fixing element (19) is a screw inserted into the tool holder, which can be moved in screwing manner between the loosening and gripping positions and wherein the fixing element in its loosening position is secured against further loosening in a captive manner.